Water Quality Partnership
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EPA Regional Temperature Project: Overview of Current Draft Recommendations

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- Salmon require cold water that is well distributed and connected.
- The temperature of the water required varies by the salmon life stage (spawning, rearing, migrating, etc.).
- Although rivers and streams (pre-human influence) had diverse and dynamic thermal regimes, salmon were able to find sufficient quantities of cold water where and when they needed it.

Based on this understanding as supported by the scientific literature, the Technical Workgroup concluded that temperature criteria that would support the protection and restoration of viable salmon populations would need to answer two equally important questions:

1. How cold must the water be to support the various life stages of native salmonids?
2. How much cold water must be available and how must it be distributed across rivers and streams within a watershed or sub-basin?

The Technical Workgroup developed the following criteria to respond to these questions.

1. How cold?

- Categorized the salmonid species into three guilds
- Identified critical life history phases for establishing temperature values
- Recommended temperature values based on the literature
- Capture important landscape features and functions:
  - cold water refugia - migration corridors - off-channel cold water habitat

2. How much and where?

- Sub-basin scale (4^{th} field HUC?)
- Potential fish distribution
- Best estimate of natural thermal potential using multiple lines of evidence to determine the thermal regime for each sub-basin that will support viable salmon populations

Issues to be resolved:

- Technical means for estimating thermal potential (modeling)
- How should thermal potential modeling outcomes be referenced or incorporated in the standards?
- Practical means for including landscape features (refugia, etc.)
- Potential vs. current distribution of fish, and how to develop this information
- Criteria that should apply prior to development of thermal potential information? (interim criteria)